REMARKS:

Claims 1-15, 20-52, 55, and 58-61 have been finally rejected under 35 U.S.C. 103(a) as being unpatentable over "the admitted prior art," U.S. Patent 5,999,400 ("Belopolsky"), and U.S. Patent 6,809,913 ("Hochgraef").

Note that the spec teaches that: Alternatively, the cable data are stored in another type of ROM or other memory. For example the memory (which stores the cable data) can be an analog memory implemented as a resistor or resistor network, or it can be another analog memory.

Each of claims 1 and 31 recites a cable, including: a conductor set, a memory that stores cable data indicative of at least one characteristic of the cable, and circuitry (coupled to at least one conductor of the conductor set) configured to respond to a data request (received on at least one conductor of the conductor set) by accessing at least some of the cable data and asserting the accessed data serially to at least one conductor of the conductor set.

The only "admitted prior art" identified in support of the rejection is text on page 4 of the specification acknowledging that any cable inherently has characteristics. The application includes no admission that it is conventional to store cable data of the type recited in claim 1 or 31 (i.e., "cable data indicative of at least one characteristic" of a cable) in a memory included in the cable (as recited in claim 1 or 31).

Applicants acknowledge that Belopolsky teaches including resistors (Belopolsky's elements 36 and 37 implemented as resistors) in a plug (plug 9 of Fig. 1) coupled to a cable. Even assuming for the sake of argument that Belopolsky teaches including a memory in a cable, neither Belopolsky nor any other reference of record nor the admitted prior art teaches or suggests including in a cable a memory that stores cable data indicative of at least one characteristic of the cable, or circuitry (as claimed) that is distinct from such a memory and is configured to respond to a data request by accessing and asserting serially at least some of the cable data.

Although Belopolsky teaches inclusion of electronic components (e.g., resistors) in a plug coupled to a cable, it cannot reasonably be contended that this teaching amounts to a

teaching or suggestion to couple (to a conductor of the cable) "circuitry" that is distinct from a memory (included in the cable) and is of the type recited in claim 1 or 31 (namely circuitry configured to respond to a data request received on a conductor of a cable by accessing cable data stored in a memory of the cable and asserting the accessed data serially to a conductor of the cable). Rather than teaching or suggesting using circuitry to access (and serially assert) cable data stored in a memory (distinct from the circuitry) included in a cable, Belopolsky merely teaches coupling to a cable electronic components (e.g., resistor 36 or 37) in a plug for the purpose of reducing electromagnetic interference in electronic equipment coupled (via the plug) to the cable or otherwise "improving performance" (in an unspecified manner) of, or "adjusting" (also in an unspecified manner), the capabilities of electronic equipment coupled via the plug to the cable. Even assuming for the purpose of argument that Belopolsky teaches coupling a "memory" (e.g., one of the resistors or other elements in Belopolsky's plug 9) to a conductor of a cable, there is no teaching or suggestion determinable from Belopolsky of circuitry distinct from such memory and configured to respond to a data request received on a conductor of a cable by accessing cable data stored in the memory and asserting the accessed data serially to a conductor of the cable. Indeed, Belopolsky fails to teach or suggest assertion of a data request to circuitry coupled to a cable. The suggestion in the Office Action that data can be transmitted to Belopolsky's plug and that the plug will inherently "respond" to the data in some sense (apparently in the sense that an electromagnetic field in the plug will change in response to electromagnetic waves indicative of the data) does not amount to a contention that Belopolsky teaches or suggests asserting a data request (as recited in the rejected claims) to the plug or accessing data in response to a data request and asserting the accessed data serially to a conductor. A conductive element (e.g., a drop of solder or piece of wire) that would inherently be present in Belopolsky's apparatus to couple one or more of the circuit elements in Belopolsky's plug 9 to a conductor of a cable would not inherently respond to a data request received on a conductor of a cable by "accessing" data (stored in any circuit element of plug 9) and "asserting accessed data serially" to a conductor of the cable. Belopolsky fails to teach or suggest any circuitry, distinct from a memory (e.g., a memory in plug 9), that is configured to respond to a data request by accessing data and "asserting accessed data serially" to a conductor of a cable.

Hochgraef discloses a cable (1) coupled between elements (17 and 18) of a circuit breaker (circuit breaker 10 of Fig. 3). The cable includes an EEPROM (EEPROM 7).

Hochgraef teaches storing in the EEPROM characteristic values of the circuit breaker or an associated current transformer (see col. 2, lines 47-50); not "cable data indicative of at least one characteristic" of a cable (as claimed). Characteristic values of a circuit breaker or associated current transformer do not inherently effect or affect transmission of signals through a cable (even if the cable is coupled to the circuit breaker or transformer), are not necessarily "transmission characteristic related information" pertaining to a cable (e.g., information indicative of signal transmission through a cable, even if the cable is coupled to the circuit breaker or transformer), and are not "cable data indicative of at least one characteristic" of a cable (as claimed) even if the cable is coupled to the circuit breaker or transformer. Hochgraef fails to teach or suggest (at col. 2, lines 47-50 or elsewhere) storing "transmission characteristic related information" in EEPROM 7 (as apparently asserted in the Office Action). Even if one assumes for the sake of argument that Hochgraef did include such teaching, the teaching does not amount to a teaching or suggestion to store in a cable "cable data indicative of at least one characteristic" of the cable as claimed. Hochgraef also fails to teach (at col. 1, lines 47-50, col. 2, lines 48-50, or elsewhere) storing in EEPROM 7 "characteristic values, which effect [sic] the signal communication" (as asserted in the Office Action). Even if one assumes for the sake of argument that Hochgraef did include such teaching, the teaching does not amount to a teaching or suggestion to store in a cable "cable data indicative of at least one characteristic" of the cable as claimed.

The Office Action asserts that Hochgraef teaches, at col. 1, last paragraph, storing "any transmission characteristic related information in a memory" of a cable. Applicants acknowledge that at col. 1, last paragraph, Hochgraef teaches "inserting" a memory into a connection line between at least one current transformer and an electronic overcurrent release. This memory can be an EEPROM. As noted above, Hochgraef teaches storing in the memory characteristic values of a circuit breaker associated with the current transformer(s) or of the current transformer(s) itself (see col. 2, lines 47-50); not "cable data indicative of at least one characteristic" of a cable (as claimed). Hochgraef fails to teach (at col. 1, last paragraph, or elsewhere) storing "cable data indicative of at least one characteristic" of a cable (as recited in the rejected claims) in an EEPROM (e.g., EEPROM 7) or other memory in the cable. Hochgraef does teach (at col. 1) that circuit breakers and current transformers have characteristic values, and (at cols. 1 and 2) that these values can be stored in a memory inserted into a connection line between at least one current transformer and an overcurrent

release. However, even if one assumes for the sake of argument that such values affect, or are otherwise "related" to in an extremely general sense, information transmitted through a cable coupled to such current transformer or overcurrent release, it cannot reasonably be contended that characteristic values of a circuit breaker and/or current transformer (as disclosed in Hochgraef) are "cable data" indicative of at least one characteristic of a cable (as recited in the rejected claims) even if the cable happens to be coupled to the circuit breaker or current transformer.

Neither Hochgraef nor Belopolsky (nor the admitted prior art) includes any teaching or suggestion to include a memory in a cable, or to store "cable data indicative of at least one characteristic" of the cable, or to include in a cable circuitry configured to respond to a data request by accessing cable data stored in a memory of the cable (where the circuitry is an element distinct from the memory) and asserting the accessed data serially to a conductor of the cable, as recited in claim 1 or 31. Nor is there any teaching determinable from any reference of record to modify the combined teaching of Hochgraef, Belopolsky, and the admitted prior art, to reach the claimed invention. Thus, claims 1 and 31 (and all claims that depend directly or indirectly therefrom) are patentable over Hochgraef, Belopolsky, and the admitted prior art, considered individually or in combination.

Claim 25 recites a cable including a conductor set and a subsystem (coupled to at least one conductor of the conductor set) configured to respond to a change in state of at least one conductor of the conductor set by asserting cable guide information. Cable guide information is information that guides a user as to proper connection of a cable to at least one device. The specification of the present application explains that "cable guide information" can "indicate what type of device a free end of the cable should be connected to when the other end of the cable is connected to a device of known type" (see page 6, first full paragraph, and similar language in claim 28), or can indicate whether the cable has or has not been connected to a proper connector of a device to which it is supposed to be connected (see page 22, first paragraph).

Neither Hochgraef nor Belopolsky nor the admitted prior art includes any teaching or suggestion to include in a cable a subsystem configured to respond to a change in state of at least one conductor of the conductor set by asserting cable guide information as recited in

claim 25. It cannot reasonably be contended that any of the "characteristics" of a cable mentioned in the last two paragraphs on page 4 and the first paragraph on page 5 of the specification is (or is equivalent to) "cable guide information." Rather, the characteristics mentioned in the last two paragraphs on page 4 and the first paragraph on page 5 of the specification are properties of a cable that determine how the cable filters signals transmitted therethrough. As noted above, Hochgraef teaches storing in an EEPROM (included in a cable) characteristic values of a circuit breaker or an associated current transformer (see Hochgraef's col. 2, lines 47-50) that can be connected to the cable; not cable guide information.

As noted, cable guide information is information that guides a user as to proper connection of a cable to at least one device. The apparent assertions in the last paragraph of page 21 of the Office Action that inherent characteristics ("characteristic values") of any cable (or device that can be coupled to a cable) are necessarily "cable guide information," and that coupling any cable to a device inherently "asserts" (in some general sense) such cable guide information are incorrect and assume an overbroad construction of the phrase "cable guide information." Of course, a cable and a device change state when one is coupled to the other, and the cable and/or the device may be designed to reduce electromagnetic interference in the device when it is coupled to the cable (e.g., by including an appropriate circuit element in a plug coupled to the cable as taught by Belopolsky), but these statements in no way imply that coupling the cable to the device inherently causes the cable to assert "cable guide information."

Contrary to the assertion in the paragraph beginning on page 9, line 13, of the Office Action (with reference to claim 28), Belopolsky neither teaches nor suggests that an LED should emit radiation indicative of "cable guide information" (e.g., cable guide information indicative of a type of device to which a free end of the cable should be connected, as recited in claim 28) or radiation indicative that a device is or is not coupled to the cable to which the LED is coupled. Nor would Belopolsky's LED inherently emit such radiation.

Furthermore, there is no teaching determinable from any reference of record to modify the combined teaching of Hochgraef, Belopolsky, and the admitted prior art, to reach the claimed invention. Thus, claim 25 (and claim 28 and each other claim that depends

directly or indirectly from claim 25) is patentable over Hochgraef, Belopolsky, and the admitted prior art, considered individually or in combination.

Claims 16-19 and 56-57 have been finally rejected under 35 U.S.C. 103(a) as being unpatentable over "the admitted prior art," Belopolsky, Hochgraef, and U.S. Patent App. Publication No. 2004/0230708 ("Juan"). In response, Applicants contend that claims 1 and 31 (and thus each claim that depends directly or indirectly therefrom) are patentable over the admitted prior art, Belopolsky, Hochgraef, and Juan, considered individually or in combination.

For the reasons set forth above, claims 1 and 31 are patentable over the admitted prior art, Belopolsky, and Hochgraef, considered individually or in combination. Juan fails to teach or suggest including a memory in a cable and storing "cable data indicative of at least one characteristic" of the cable as recited in claim 1 or 31. Nor is there any teaching determinable from any reference of record to modify the combined teaching of Hochgraef, Belopolsky, the admitted prior art, and Juan to reach the invention of claim 1 or 31. Thus, claims 1 and 31 (and each claim that depends directly or indirectly therefrom) are patentable over Juan, Hochgraef, Belopolsky, and the admitted prior art, considered individually or in combination.

Claims 53 and 54 have been finally rejected under 35 U.S.C. 103(a) as being unpatentable over "the admitted prior art," Belopolsky, Hochgraef, and U.S. Patent 6,473,811 ("Onsen"). In response, Applicants contend that claim 31 (and thus each claim that depends directly or indirectly therefrom) is patentable over the admitted prior art, Belopolsky, Hochgraef, and Onsen, considered individually or in combination.

For the reasons set forth above, claim 31 is patentable over the admitted prior art, Belopolsky, and Hochgraef, considered individually or in combination. Onsen fails to teach or suggest including a memory in a cable and storing "cable data indicative of at least one characteristic" of the cable as recited in claim 31. Nor is there any teaching determinable from any reference of record to modify the combined teaching of Hochgraef, Belopolsky, the admitted prior art, and Onsen to reach the invention of claim 31. Thus, claim 31 (and each claim that depends directly or indirectly therefrom) are patentable over Onsen, Hochgraef, Belopolsky, and the admitted prior art, considered individually or in combination.

Reconsideration and allowance of the claims is respectfully requested.

Respectfully submitted,

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